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**PATENT**

I hereby certify that on the date specified below, this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

October 20, 2003 Dan Parker  
Date

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants : Michael W. Reed, Eugene A. Lukhtanov, Alexander A. Gall,  
Robert O. Dempcy, Nicolaas M. J. Vermeulen and Yevgeniy S.  
Belousov

Application No. : 09/876,830

Filed : March 21, 2002

For : FLUORESCENT QUENCHING DETECTION REAGENTS AND  
METHODS

Examiner : Jezia Riley

Art Unit : 1637

Docket No. : 290097.405

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.131

Commissioner:

I, Eugene Lukhtanov, hereby declare as follows:

2

1. I am co-inventor with Michael W. Reed, Alexander A. Gall, Robert O. Dempcy, Nicolaas M. J. Vermeulen and Yevgeniy S. Belousov of the above-identified patent application (hereinafter referred to as "subject application").

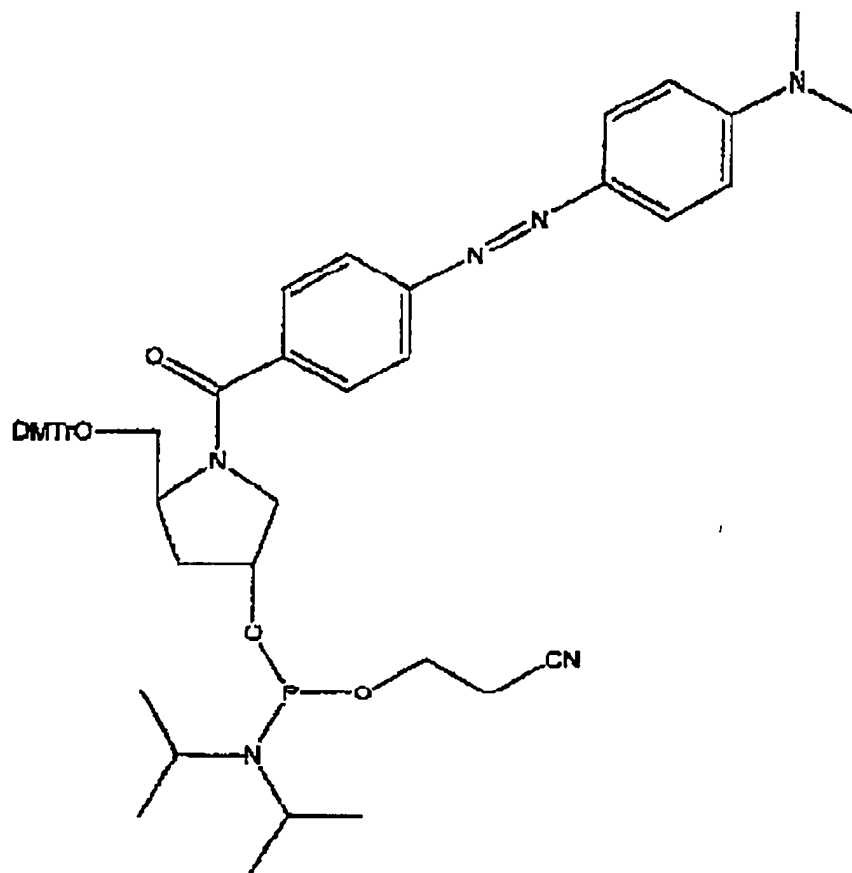
2. All of the work described within this Declaration was performed in the United States, by me or on my behalf and under my direction.

3. I have reviewed my laboratory records, including the Exhibit submitted herewith, and readily conclude that a compound as claimed in the subject application was conceived prior to September 30, 1999. Furthermore, due diligence was exercised from this time period until the invention was either actually reduced to practice, or until the filing of the subject application.

4. The Exhibit annexed hereto is a photocopy of a laboratory notebook page kept in the regular course of business at Epoch Biosciences, Inc. All dates have been removed from the annexed photocopy, and it is my understanding based on discussion with applicants' representatives that this is a permissible Patent Office practice. Otherwise, the Exhibit is a true copy of a page from my laboratory notebook record. The actual notebook page is dated prior to September 30, 1999.

5. The Exhibit discloses the preparation of a compound of the following formula

3



6. Evidence for the formation of the indicated structure is provided in the notebook record annexed hereto, in the form of thin layer chromatography and absorption spectra.

4

7. In summary, upon review of my laboratory records, I have concluded that, at least prior to September 30, 1999, a compound as described and claimed within the subject application had been conceived. Furthermore, conception of the invention led to further research, resulting in an actual reduction to practice or in the filing of the subject application.

8. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated this 20th day of October, 2003

Eugene Lukhtanov  
Eugene Lukhtanov

Enclosure:  
Exhibit

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# EXHIBIT

Project No.                       
Book No. 589 TITLE                     

From Page No. 104

Starting material: CC1(C)C(C(C(C1O)OC2=CC=CC=C2C)OC3=CC=CC=C3)OC4=CC=CC=C4  
 Reagents:  $\text{CH}_2\text{Cl}_2$  - 20 ml,  $\text{Et}_3\text{N}$  - 2 ml,  $\text{SiP}(\text{O}(\text{Et})_2)_3$  (0.9 g)  
 Product: CC1(C)C(C(C(C(C1O)OC2=CC=CC=C2C)OC3=CC=CC=C3)OC4=CC=CC=C4)OC5=CC=CC=C5  
 $\text{C}_{50}\text{H}_{59}\text{N}_5\text{O}_6\text{P}$   
 MW 870

To a solution of  $\text{SiP}(\text{O}(\text{Et})_2)_3$  (0.9 g) in 20 ml of  $\text{CH}_2\text{Cl}_2$  and 2 ml of  $\text{Et}_3\text{N}$  was added  $\text{SiP}(\text{O}(\text{Et})_2)_3$  (0.9 g). The reaction was kept in solution at RT.  $\text{CH}_2\text{Cl}_2$  was removed and the residue was concentrated. The residue was chromatographed on silica (pre-washed with  $\text{Et}_2\text{O}$  and then with 50%  $\text{Et}_2\text{O}$ /hexane) eluting with  $\text{Et}_2\text{O}$ -hexane (2:1). Concentration of the pure product fractions and drying under vacuum afforded 0.3 g of the desired phosphoramidite as an orange, amorphous solid.

Fig 4:

TLC plate was washed with  $\text{Et}_2\text{O}$  and dried prior to mass loading and run.

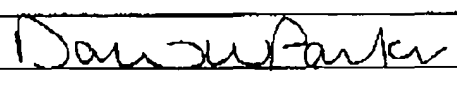
Witnessed & Understood by me,                      Date                     

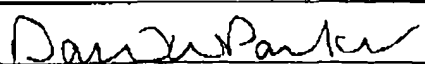
Invented by                      Date                     

Recorded by Lukhtanov

<b>TRANSMITTAL FORM</b> <i>(To be used for all correspondence after initial filing)</i>	Application Number	09/876.830
	Filing Date	June 6, 2001
	First Named Inventor	Michael W. Reed
	Art Unit	1637
	Examiner Name	Jezia Riley
Attorney Docket No.		290097.405

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Reply <input type="checkbox"/> After Final <input checked="" type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement; Form PTO-1449 <input type="checkbox"/> Cited References <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts under 37 C.F.R. 1.52 or 1.53 <input type="checkbox"/> Response to Missing Parts/Incomplete Application	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Request for Corrected Filing Receipt <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation, Change of Correspondence Address <input checked="" type="checkbox"/> Declaration under 37 CFR 1.131 <input type="checkbox"/> Statement under 37 CFR 3.73(b) <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund	<input type="checkbox"/> CD(s), Number of CD(s) _____ <input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group ( <i>Appeal Notice, Brief, Reply Brief</i> ) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Return Receipt Postcard <input checked="" type="checkbox"/> Additional Enclosure(s) ( <i>please identify below</i> ): Exhibit _____ _____ _____
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Individual Name	David W. Parker
Signature	
Date	October 20, 2003

CERTIFICATE OF TRANSMISSION/MAILING	
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.	
Typed or printed name	DAVID W PARKER
Signature	 Date: October 20, 2003

This collection of information is required by 37 CFR 1.3. The information is required to obtain a telephonic benefit by the public which is to file (and by the USPTO is process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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